

ABSTRACT

A system on a chip (SOC voltage generator) system is provided for supplying at least one voltage level to a plurality of units on a chip having an SOC design. The system includes a plurality of local DC voltage generators distributed throughout the chip, each local DC voltage generator independently supplying voltage to at least one unit of the plurality of units, each local DC voltage generator including a regulator system outputting one pump control signal; and a pump system receiving the one pump control signal and outputting at least one voltage level in accordance with the one pump control signal. Furthermore a method for supplying voltage to a plurality of units on a chip having an SOC design is provided. The method includes the steps of distributing a plurality of local DC voltage generators throughout the chip; and supplying at least one voltage level to the plurality of units via the plurality of local DC voltage generators.